CLAIMS

What is claimed is:

1.   A method for updating a lookup table comprising the steps of:

      providing access to a first set of routes and associated first subtree entry
5   stored in a first memory space in the lookup table through a first pointer to the
first subtree entry; and

      storing a second set of routes and associated second subtree entry in a
second memory space in the lookup table; and

      switching access to the second set of routes stored in the second memory
10   by replacing the first pointer stored to the first subtree entry with a second
pointer to the second subtree entry.

2.   The method as claimed in Claim 1 further comprising the step of:

      deallocating the first memory space after switching access.

3.   The method as claimed in Claim 1 wherein the number of routes in the first set
15   of routes is less than the number of routes in the second set of routes.

4.   The method as claimed in Claim 1 wherein the number of routes in the first set
of routes is greater than the number of routes in the second set of routes.

5.   An apparatus for updating a lookup table comprising:

      a first pointer to a first subtree entry, the first subtree entry providing
20   access to a first set of routes stored in a first memory space; and

      means for storing a second set of routes and associated second subtree
entry in a second memory space while access is provided to the first set of routes
stored in the first memory space by the first pointer and switching access to the
second set of routes by replacing the first pointer with a second pointer to the

second subtree entry, the second subtree entry providing access to the second memory space.

6. The apparatus as claimed in Claim 5 further comprising:
means for deallocating the first memory space after switching access.

5 7. The apparatus as claimed in Claim 5 wherein the number of routes in the first set of routes is less than the number of routes in the second set of routes.

8. The apparatus as claimed in Claim 5 wherein the number of routes in the first set of routes is greater than the number of routes in the second set of routes.

9. An apparatus for updating a lookup table comprising:
10 a first pointer to a first subtree entry, the first subtree entry providing access to a first set of routes stored in the first memory space;

a second memory space for storing a second set of routes and associated second subtree entry while access is provided to the first set of routes stored in the first memory space by the first pointer; and

15 logic which provides access to the second set of routes by replacing the first pointer with a second pointer to the second subtree entry, the second subtree entry providing access to the second memory space after the second set of routes are stored in the second memory.

10. The apparatus as claimed in Claim 9 further comprising:
20 deallocation logic which deallocates the first memory space after the first pointer is replaced.

11. The apparatus as claimed in Claim 9 wherein the number of routes in the first set of routes is less than the number of routes in the second set of routes.

12.   The apparatus as claimed in Claim 9 wherein the number of routes in the first set of routes is greater than the number of routes in the second set of routes.